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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,696

02/15/2005

Kazuhisa Yasui

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1736

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7590

12/15/2006

EXAMINER

NGUYEN, SANG H

C. IRVIN MCCLELLAND

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.

1940 DUKE STREET

ALEXANDRIA, VA 22314

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/524,696

Applicant(s)

YASUI ET AL.

Examiner

Sang Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/15/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 02/15/05 has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klotzsch et al (U.S. Patent No. 5,536,935) in view of Constant et al (U.S. Patent No. 5,542,004) .

Regarding claims 1 and 3; Klotzsch et al discloses a method and apparatus for measuring a particle diameter of foam on a liquid, characterized by comprising:

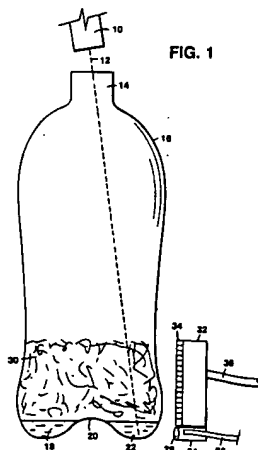
a laser light source (44 of figure 2) that irradiates a linear laser beam (46 of figure 2) onto a surface of a foam layer (30 of figure 1) created on a liquid (18 of figure 1);

malt alcoholic drink ();

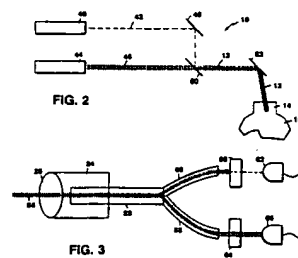
an imaging device (i.e., a vertical line array [34 of figure 1] and a foam detector [32 of figure 1])) that images a laser line () reflected on the surface of the foam layer () to obtain an image of the laser line (46 of figure 2); and

a calculating device (i.e., a processor [68 of figure 4]) that obtains edge information of the laser line (i.e., a threshold level) from the image of the laser line () to calculate a particle diameter of foam (30 of figure 1) in the foam layer (figure 1) based on the edge information (col.5 line to col.6 line 2; col.7 lines 34-67 and col.8 lines 37-52). See figures 1-16.

U.S. Patent Jul. 16, 1996 Sheet 1 of 11 5,536,935



U.S. Patent Jul. 16, 1996 Sheet 2 of 11 5,536,935



Klotzsch et al discloses all of features of claimed invention except for the surface foam layer created on malt alcoholic drink. However, Constant et al teaches that it is known in the art to provide the surface foam layer (14 of figure 1) created on malt alcoholic drink (considered to a beer as liquid [13 of figure 1) in clear cylindrical beaker (10 of figure 1 and col.1 lines 5-10 and col.2 lines 11-15 and 55-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method and apparatus of Klotzsch et al with the surface foam layer created on malt alcoholic drink as taught by Constant et al for the purpose of analyzing the image from the video camera and generating numerical data quantifying the visually perceptible characteristics of the foam.

Regarding claim 2; Klotzsch et al discloses the linear laser beam (12 of figure 1) is obliquely (figure 1) irradiated onto the surface of the foam layer (30 of figure 1), and the laser line is imaged by the foam detector 32 of figure 1) from a position in a direction perpendicular to the surface of the foam layer (30 of figure 1).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yasui et al (6439035) discloses method and apparatus for evaluating retention time of foam of beer; Cronshaw et al (6275603) discloses method and apparatus for detecting glass particles in glass bottles filled with beer; Fantone et al (6226081) discloses optical height of fill detection system and associated method; A. Norwich (3232429) discloses fill level detector; Morishita et al (JP 04 142 290) discloses

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automatic constant pouring device for carbonated beverage; or Tatsuta (JP2000180358) discloses evaluating apparatus for foaming.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 7, 2006


Sang H. Nguyen
Patent Examiner
Art Unit 2877